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AUTHOR Pollard, Diane S.

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ABSTRACT

Title IX of the Educational Amendments of 1972 prohibits discrimination on the basis of sex in educational institutions that receive federal financial assistance. This digest focuses on the theme of single-sex education. Articles featured in this issue include: (1) "Single-Sex Education" (Diane S. Pollard); (2) "A Legal Framework for Single-Sex Education" (Deborah L. Brake); (3) "Acting on What We Know" (Ellen Wahl); and (4) "Single-Sex Education: FAQs of the OCR" [Office for Civil Rights] (Jan D. Gray). (ASK)

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WEEA Equity Resource Center

25 Years of Title IX Digest

Single-Sex Education

By Diane S. Pollard, School of Education, University of Wisconsin—Milwaukee

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While there has been considerable furor in both public and educational spheres concerning existing and proposed single-sex schools during the past decade, somewhat less controversy has arisen over single-sex classes within mixed-sex schools. One reason for this may be that single-sex classes have become somewhat of a rarity in today's elementary, middle, and secondary schools, particularly in public schools. However, for a variety of reasons, a number of schools have begun to consider or experiment with single-sex classes.

Not so very long ago single-sex classes in coeducational schools were considered to be an appropriate educative aspect of K–12 learning environments. As late as the 1960s or even into the early 1970s in some parts of the United States, girls and boys were routinely separated for some of their classes on a daily basis. The bases for single-sex classes varied. In some cases, students were placed in separate classes with different but purportedly parallel subject matters. For example, in high schools across the country, girls went to home economics classes while boys went to "shop" or agriculture classes. These classes, strictly separated by sex, were usually required of all students. An assumption underlying these types of classes was that they were necessary to prepare girls and boys for the disparate roles they would assume as adults. In other cases, girls and boys were sent to separate classes even though the curriculum or subject matter was the same. Physical education and sex education were prime examples of these types of single-sex classes. In these cases, it appears, boys and girls were separated because of assumptions about their physical abilities and characteristics, their social and personal functioning, or beliefs held by adults regarding "appropriate" interaction among or between the sexes. Finally, some single-sex classes were established to exclude girls from certain occupations or activities based on gender stereotypes of what were and were not appropriate activities for females.

Single-sex classes with these types of aims and programs are no longer prevalent in today's K–12 mixed-sex schools. Laws such as Title IX aimed at preventing sex discrimination in education, as well as changing norms regarding women's and men's roles, have emphasized access to the same educational experiences in school for both sexes. Usually, it has been argued this equality of access can best be accomplished through coeducational classes. However, recently there has been a slight resurgence of interest in single-sex classes in mixed-sex schools. The impetus for this interest has come from several directions and is fueled by quite different goals. Among these are the desire to (1) enhance the academic achievement of girls in specific subjects, (2) support classroom social organization, and (3) provide mechanisms for formal and informal socialization within a specific cultural context—in particular, an African-centered educational context.

The Academic Achievement Gap

The establishment of single-sex classes as a vehicle to enhance academic achievement among girls was in large part a reaction to the realization that access to educational experiences via mixed-sex classes did not necessarily result in equity of educational opportunity. Research such as that published by the Sadkers and the American Association of University Women

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Single-Sex Education . . . continued

Even when girls and boys occupy the same classroom space, they sometimes receive quite different educational experiences.

(AAUW) Educational Foundation[1] has indicated that even when girls and boys occupy the same classroom space, they sometimes receive quite different educational experiences. Gender stereotyping and gender bias can be major factors in coeducational classrooms. Girls receive less attention and are given fewer opportunities for learning and problem solving than boys. In addition, girls may feel inhibited and constrained in some mixed-sex classes, thus becoming less motivated to engage in classroom activities and in turn performing less well as a result. These findings were particularly evident in math, science, and computer-related subjects.

Much of the research on single-sex classes has been discussed in Pamela Haag's literature review (in "Single Sex Education: What Does the Research Tell Us?" from *Separated by Sex: A Critical Look at Single-Sex Education for Girls*, the 1998 report from the AAUW Educational Foundation). Overall, from the studies I have reviewed it appears that the outcomes of single-sex classes are mixed. Four studies illustrate this point. One, by Marsh and Rowe,[2] was experimental and found little positive effect. The remaining three, by Durost,[3] Martin,[4] and Perry,[5] respectively, were descriptive. The Martin study is an ethnography aimed more at describing the implementation of a single-sex classroom than assessing its outcomes. Durost reported that a differential between boys and girls in math achievement scores narrowed for the girls in single-sex classes over a seven-year period. Perry reported that grade point averages were higher for both girls and boys in single-sex math and science classes than in mixed-sex classes. The mixture of results seen in these studies could be attributed to differences in research aims, designs, or objectives.

Classroom Social Organization

A second goal focuses on the establishment of single-sex classes as a means of improving classroom behavior and participation. Studies by Bushweller,[6] Evans,[7] and Richardson[8] consider this issue. Bushweller, starting from the premise that boys engage in more antisocial behavior than girls, reviewed efforts to intervene on boys' behalf. Among the remedies with positive outcomes reported were all-male classes. Evans looked at the impact of a specific project that utilized single-sex groups, whereas Richardson described a school in which all classes were separated by sex. Both reported improved behavioral outcomes and enthusiasm for both boys and girls. All of these studies were conducted in middle schools. An underlying assumption of this orientation toward single-sex classes appears to be that the developmental characteristics of early adolescents caused increased difficulties in their ability to cope with the classroom environments. Like the research on achievement, all of these studies were descriptive. Furthermore, most were relatively short-term.

Cultural Socialization

The third impetus for the establishment of single-sex classes has stemmed from a broader attempt to implement culturally centered educational models. In this context, single-sex classes have focused on the formal and informal socialization of girls and boys. Here, I will focus on African-centered educational models proposed for public schools. One of the underlying tenets of African-centered education is that schools serving African American children need to be closely linked with the communities of their students, so that they can build upon and reinforce the cultural activities of those communities.[9] This orientation suggests that these schools should not be limited to an academic focus but should also actively concern themselves with their students' social and personal development and with preparing them for the roles they are likely to assume in adulthood. Furthermore, this approach emphasizes the notion that students are expected to use education not only for individual advancement but also for promoting and empowering their community. One way in which these ideas have been promoted in some contemporary African American communities is through single-sex classes.

African-centered schools in the United States are not new—they have existed for over two hundred years.[10] However, formerly these schools operated primarily in the private sector. Now, within the past decade, interest in African-centered education has arisen in public schools. It is in this area that concerns about culturally based education and single-sex education have converged.

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A Legal Framework for Single-Sex Education

By Deborah L. Brake, University of Pittsburgh School of Law

The U.S. Supreme Court's June 1996 decision in *United States v. Virginia*, holding that the exclusion of women from admission to the Virginia Military Institute (VMI) was a violation of the "equal protection" clause of the 14th Amendment to the U.S. Constitution, makes it clear that any categorical exclusion of members of one sex from a public educational institution or program will be met with "skeptical scrutiny" under the Constitution—scrutiny that VMI was unable to withstand. The Constitution requires such skepticism, the Court held, because, as in the VMI case, such sex-based distinctions often work an injustice on deserving individuals and perpetuate harmful stereotypes. In addition to the constitutional limits on public institutions, Title IX of the Education Amendments of 1972 prohibits sex discrimination in public and private institutions that receive federal financial assistance. However, both the Constitution and Title IX recognize that there are limited circumstances in which single-sex educational opportunities may be justified.

For over 150 years, the doors of VMI were closed to women, and the Commonwealth of Virginia offered VMI's unique educational experience exclusively to men. As a justification for the exclusion of women, VMI argued that the school's rigorous "adversative" method of training was not suitable for women. On June 26, 1996, the Supreme Court held that VMI's exclusion of women was a violation of the Constitution's guarantee of "equal protection."[1]

Citing an earlier decision in which the Court had struck down the exclusion of men from a state-run nursing school, *Mississippi University for Women v. Hogan*,[2] the Court noted that gender-based government action requires an "exceedingly persuasive justification" and may not rely on "overbroad generalizations about the different talents, capacities, or preferences of males and females." Emphasizing that "official action denying rights or opportunities based on sex" requires "skeptical scrutiny" under the Constitution, the Court held that Virginia had failed to sustain its burden of justifying the wholesale exclusion of women from VMI. The Court also held that the creation of a separate all-women's program, which was admittedly unequal to VMI in both tangible and intangible benefits, was not an adequate remedy for the constitutional violation of withholding VMI's opportunities and advantages (including its unique approach to education, the valuable credential of a VMI degree, and access to its extensive alumni networks after graduation) from women "who want a VMI education and can make the grade." VMI subsequently announced that it would accept applications from women.

A Remedy for Discrimination

The VMI decision did not foreclose all single-sex education. First, because VMI is a government-run institution (and not just one receiving government funds), constitutional principles of equal protection apply to it that do not apply to private institutions. In fact, 26 private women's colleges filed a brief in the VMI case urging the Supreme Court to rule against VMI but arguing at the same time that such a decision would not affect their ability to remain single-sex institutions.

Moreover, in the VMI decision the Supreme Court left room even for public single-sex education that serves to remedy discrimination. Although ruling out programs that serve to "perpetuate the legal, social, and economic inferiority of women," it also explicitly ruled that sex classifications are permissible if used "to compensate women for particular economic disabilities they have suffered . . . to promote equal employment opportunity . . . to advance full development of the talent and capacities of our Nation's people." Indeed, quoting approvingly from the brief of the 26 private women's colleges, the Court noted that "it is the mission of some single-sex schools 'to dissipate, rather than perpetuate, traditional gender classifications.'" In this respect, the Court suggested a basis for distinguishing all-female from all-male education, namely that the latter, much like all-white education, reinforces a long-standing message branding the excluded group as inferior.

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It is the mission of some single-sex schools to dissipate, rather than perpetuate, traditional gender classifications.

Legal Framework . . . continued

Financial aid may be targeted at members of one sex as long as the overall award of financial aid is not discriminatory.

This analysis is consistent with the Court's earlier decision in *Mississippi University for Women v. Hogan*, in which the Court stated that "[i]n limited circumstances, a gender-based classification favoring one sex can be justified if it intentionally and directly assists members of the sex that is disproportionately burdened."[1] In that case the Court determined that an all-female public nursing school was unconstitutional because it served no compensatory purpose, since it could hardly be said that women had been deprived of opportunities in nursing. In fact, the Court held that excluding men reinforced a stereotype that nursing was a profession only for women—which actually hurt women.

It is thus clear that a public school or program that excludes all members of one sex may pass constitutional muster only if the school demonstrates persuasively that it truly serves the objective of compensating for discrimination and eliminating arbitrary barriers to advancement. For example, an all-girls math program may be sustainable if its proponents can demonstrate that it substantially furthers the goal of remedying past or present discriminatory practices that have discouraged girls from pursuing an interest in math. If, however, such a program lacks a compensatory justification, and instead teaches math in a diluted form based on stereotypes that girls are "bad with numbers," it would not withstand a constitutional challenge.

Title IX

Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in educational institutions that receive federal financial assistance. Unlike the Constitution, Title IX thus applies to many private institutions. Like the Constitution, however, Title IX does not categorically prohibit single-sex education in institutions it covers.

As the original Senate sponsor explained, this measure was designed to be "a strong and comprehensive measure [that would] provide women with solid legal protection from the persistent, pernicious discrimination which is serving to perpetuate second-class citizenship for American women." Consequently, Title IX prohibits the institutions it covers from operating sex-segregated programs or activities—whether academic programs, extracurricular activities, or occupational training[4]—unless specific exceptions apply.

The regulations issued under Title IX do contain certain exceptions that permit specified programs separated by gender. For example, although institutions covered by Title IX may not generally offer sex-segregated courses in physical education, they may do so if the classes involve contact sports.[5] Portions of classes in elementary and secondary schools that deal exclusively with human sexuality may also be conducted in separate sessions for boys and girls.[6] Institutions may also make requirements based on vocal range or quality that result in a chorus of one or predominantly one sex.[7] In addition, financial aid may be targeted at members of one sex as long as the overall award of financial aid is not discriminatory;[8] separate single-sex programs may be offered in competitive athletics;[9] separate housing may be made available for male and female students as long as it is comparable;[10] and separate schools and programs may be offered for pregnant girls, if they meet requirements of voluntariness and comparability.[11]

In addition, as is true under the Constitution, the Title IX regulations permit remedial and affirmative action. They provide as follows:

> *(a) Remedial action. If the Assistant Secretary finds that a recipient has discriminated against persons on the basis of sex in an education program or activity, such recipient shall take such remedial action as the Assistant Secretary deems necessary to overcome the effects of such discrimination.*
>
> *(b) Affirmative action. In the absence of a finding of discrimination on the basis of sex in an education program or activity, a recipient may take affirmative action to overcome the effects of conditions which resulted in limited participation therein by persons of a particular sex. . . .*[12]

Admissions

Finally, Title IX has limited application to admissions. The statute provides that with respect to admissions, it covers institutions of vocational education, professional education, and graduate higher education, and public institutions of undergraduate higher education,[13] ex-

5 *Continued p. 5, "Legal Framework"*

Legal Framework . . . continued

cept those that have traditionally maintained a policy of single-sex admission.[14] Thus, Title IX does not explicitly cover admissions policies in traditionally single-sex public institutions of undergraduate education, in private institutions of undergraduate higher education, or in elementary and secondary institutions (at least those that were single-sex before Title IX was enacted). These institutions therefore are not barred by Title IX from maintaining a single-sex admissions policy.

Policy Considerations

Historically, single-sex education has often hurt girls and women by depriving them of educational opportunities critical to their advancement in society. Even where parallel programs have been established for girls, they have tended to be distinctly unequal, with fewer resources and inferior offerings. As a result, both the Constitution and Title IX, as discussed above, place strict limits on the availability of single-sex education, while at the same time explicitly allowing for single-sex programs that are carefully constructed to remedy discrimination where it still exists or where the effects of past discrimination still linger.

There is not now, and never has been, a level playing field for girls and women in education. Equality did not exist in 1972 when Title IX was enacted, and although many improvements have been made since that time, much still remains to be accomplished before real equity is achieved. Among the many ongoing problems are (1) discrimination against pregnant girls and young mothers, combined with wholly inadequate educational opportunities for these students that exacerbate high dropout rates and foster economic dependence, with all of its attendant problems; (2) the rampant nature of sexual harassment; (3) substantial underrepresentation of females in math, science, and other technology programs; (4) significantly lower scores by female students on a wide variety of standardized tests; (5) prejudices against girls' participation in the classroom; (6) biased curricula; (7) predominantly sex-segregated vocational education programs, with females overwhelmingly directed into training programs for historically female—and traditionally low-wage—jobs; (8) the exclusion of female students from many athletic opportunities, including athletic scholarships worth hundreds of millions of dollars; and (9) the exclusion of women from consideration by entire classes of other scholarships, many for study in fields in which men already have a participation advantage.

Single-sex programs can in some instances perform a valuable role in combating these inequities. For example, to remedy the persistent effects of discrimination, federal, state, local and private entities have developed a considerable network of gender-based scholarships and financial assistance aimed at supporting women seeking to enter historically male-dominated fields. Some institutions have also created outreach programs, such as summer residential math and science "institutes" for girls on college campuses aimed at encouraging female high school and junior high school students to encourage them to consider engineering and other nontraditional career options. In light of the history of discrimination against women in education and the barriers that female students continue to face based on their gender, such programs have a legitimate place.

There are, however, several good reasons for the law to make public and federally assisted single-sex education the exception rather than the rule.

By definition, educational opportunities that are limited to one sex deprive each and every member of the excluded gender—historically, girls and women—of the benefits of those opportunities, regardless of the number of individual students who might stand to gain from them. Such blanket exclusions are unfair not just to those specific students but because they perpetuate existing inequities between the sexes. For example, the lower court in the VMI case found that some women are capable of all of the activities required of VMI cadets, yet the 347 women who had requested applications for admission in the two years preceding the lawsuit had received no response to their inquiries. Those women who wanted to attend VMI and could have made the grade thus never had the chance—and will forever lack the VMI education and degree that will profit their male peers for a lifetime.

When the design of single-sex schools or programs is premised on fixed notions about what women as a group are like, or what

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Single-sex education has often hurt girls and women by depriving them of educational opportunities critical to their advancement in society.

Legal Framework . . . continued

women as a group are capable of, it tends to reinforce limiting stereotypes that create barriers to women's advancement. Virginia's exclusion of women from VMI, for example, was based in part on its belief that, compared with men, women are more emotional, less aggressive, and less able to withstand stress. Similar stereotypes have been used historically to block women from a variety of pursuits, such as the practice of law, and still today lead to the tracking of women into vocational training in lower-paying "pink collar" fields, such as nursing and cosmetology, even as men continue to be directed into fields that provide higher wages and greater opportunities for upward mobility.

Even where parallel single-sex programs are set up for both sexes, history has shown that there is a serious risk of unequal allocation of resources.

Even where parallel single-sex programs are set up for both sexes, history has shown that there is a serious risk of unequal allocation of resources—invariably to the detriment of the girls' program. For years, Philadelphia justified its exclusion of girls from a boys' magnet school based on the existence of a separate program for girls. Finally, in 1983, a state court struck down the exclusion of girls based on an examination of the facts, which showed the superiority of the boys' school in everything from faculty credentials to computer and library access. VMI's creation of an alternative program for women also vividly illustrates this danger. The Virginia Women's Leadership Institute has significantly inferior facilities, a less advanced curriculum (it offers no courses in engineering and no bachelor of science degree), a small fraction of the endowment, fewer highly trained faculty, and none of the prestige or alumni connections of VMI; it is, as a dissenting lower court judge put it, a "pale shadow" of VMI. On a broader scale, over 20 years after the enactment of Title IX, male athletic programs across the country, from elementary school through college, continue to receive a far greater share of resources and institutional commitment than do female athletic programs.

Particularly with respect to boys, the benefits of single-sex education claimed by some of its proponents have not been demonstrated. As the Office of Educational Research and Improvement of the U.S. Department of Education (OERI), after canvassing the research, reported, "Results of the studies are inconclusive as to whether one type of school [i.e., single-sex or coed] is more effective in promoting higher academic achievement and psychosocial development." OERI did note, however, that several studies indicate that girls enrolled in single-sex schools perform better on a variety of measures than their peers in coeducational schools; that boys may perform better in coeducational settings; and that other studies suggesting different outcomes for boys in single-sex Catholic high schools can be explained by differences in family background and initial ability.[15]

Some experts have advocated special programs for inner-city male youths to enhance their educational opportunities, but the educational crisis confronting disadvantaged communities is gender-neutral. As the Court noted in *Garrett v. Board of Education of Detroit*,[16] the educational system is failing its females as much as its males. This crisis is a result of many complex factors and cannot be resolved by the simple expedient of segregating groups of students from one another. A number of experts in the Garrett case testified that sex segregation in the public schools is counterproductive for African American boys, for whom it can create an expectation of privilege based on gender. Moreover, by failing to teach them how to learn and achieve together in a climate of mutual respect, segregating the sexes in this manner can undermine the preparation of students for success in a mixed-gender society. Better alternatives exist, including effective targeting of federal assistance to the poorest school districts and children; vigorous outreach efforts to increase the diversity of teachers (in particular, to increase the number of males and people of color); and support for community-based mentoring and after-school programs and for innovative academic programs that will engage and enrich all students.

Conclusion

Both the Constitution and Title IX set strict limits on single-sex education—the Constitution because its guarantee of equal protection requires "skeptical scrutiny" of any gender classification by a public institution or in a public program, and Title IX because it prohibits sex discrimination by educational institutions that receive federal funds. Underlying both constitutional and statutory law is the recognition that it is critical to strike down gender classifications that create unfair barriers to advance-

7 *Continued p. 7, "Legal Framework"*

Single-Sex Education: FAQs of the OCR

By Jan D. Gray, Office for Civil Rights, U.S. Department of Education

The Office for Civil Rights, Department of Education (OCR) regularly responds to questions regarding the application of Title IX of the Education Amendments of 1972 (Title IX). Here are four of the most frequently asked questions related to single-sex schools, classes, and programs.

1. ***Does Title IX prohibit single-sex elementary and secondary schools?***

OCR always remains open to instructional approaches that will help improve student academic achievement, provided that equal, high-quality educational opportunities are guaranteed for all.

Accordingly, Title IX permits single-sex, nonvocational public schools, as long as comparable facilities, courses, and services are made available to the excluded sex based on the same admission policies and criteria.

The Title IX regulation's voluntary affirmative action provision also permits single-sex schools if they are designed to overcome conditions that have resulted in limited participation by sex.

2. ***Does Title IX prohibit single-sex classrooms and programs in coeducational elementary and secondary schools?***

With some exceptions the Title IX regulations generally prohibit single-sex classrooms and programs in coeducational schools. The exceptions to the general prohibition are contact sports offered in physical education classes; choruses, when based on vocal requirements or quality; and portions of classes dealing with human sexuality. Separate classes may be provided for pregnant students, but participation must be voluntary. Single-sex classes are also permitted in order to overcome conditions that have resulted in limited participation by one sex.

3. ***How does this apply in the postsecondary context? Does the law prohibit single-sex postsecondary schools?***

Title IX does not cover admissions to private undergraduate institutions. Title IX generally prohibits public undergraduate single-sex schools unless the school has been a single-sex institution since its creation.

Title IX also does not cover admissions to educational institutions whose primary purpose is to train students for the military service of the United States or for the merchant marines, or that are controlled by a religious organization whose tenets would be seriously compromised by admission of the other sex.

4. ***Does Title IX prohibit single-sex programs and classes in the postsecondary context?***

Title IX regulations generally prohibit single-sex classrooms and programs in coeducational postsecondary schools. The exceptions to the general prohibition are the same as those for coeducational elementary and secondary schools.

Legal Framework . . . continued

ment for talented individuals and serve to perpetuate inferior opportunities for women.

At the same time, neither the Constitution nor Title IX prohibits all public single-sex education, let alone all single-sex education. The Supreme Court has made it clear that public single-sex education does not violate the guarantee of equal protection as long as the proponents of a single-sex program or institution are able to demonstrate persuasively that it substantially furthers the goal of remedying past or present discrimination. Title IX also permits single-sex programs in a number of specific circumstances, such as remedying discrimination or overcoming the effects of sex-based barriers to participation. The law thus recognizes that there are circumstances in which properly designed and implemented single-sex education can play an important role in combating discrimination and dissipating traditional gender classifications. But in light of the dangers of categorical sex-based classifications, the law properly places a clear burden of proof on those seeking to justify such educational programs.✦

Notes

1. 116 S.Ct. 2264, 1996.
2. 458 U.S. 718, 1982.
3. 458 U.S. 728.
4. 34 C.F.R. 106.31.
5. 34 C.F.R. 106.34(c).
6. 34 C.F.R. 106.34(e).
7. 34 C.F.R. 106.34(f).
8. 34 C.F.R. 106.37(b).
9. 34 C.F.R. 106.41.
10. 34 C.F.R. 106.32(b).
11. 34 C.F.R. 106.40(a)(3).
12. 34 C.F.R. 106.3.
13. 20 U.S.C. 1681(a)(1).
14. 20 U.S.C. 1681(a)(5).
15. *Single-Sex Schooling: Perspectives from Practice and Research*, vol. I, U.S. Department of Education, Office of Educational Research and Improvement (Dec. 1993), 17-18. See also *Issues Involving Single Gender Schools and Programs*, General Accounting Office (May 1996), 4-5.
16. 777 F. Supp. 1004, Eastern District of Michigan, 1991.

Title IX permits single-sex programs in a number of specific circumstances.

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Single-Sex Education . . . continued

Sometimes single-sex classes are established to focus on achievement issues, sometimes on social and behavioral issues, sometimes on cultural issues, and often on a combination of issues.

Since my colleague Cheryl Ajirotutu and I have studied two African-centered schools in one urban public school district, we have observed single-sex classes established in one, the middle school, as ongoing after-school programs. These programs encompass a wide variety of activities. One general aim of both the girls' and the boys' groups is to support academic achievement by emphasizing the connections between the work of school and students' present and future lives. Another goal of these classes is to promote personal and social development emphasizing students' African and African American social context as well as their need to be able to function responsibly and effectively in a broader and more diverse outside world. Finally, the adults working with both the girls' and the boys' groups wished to address issues of gender bias and believe that single-sex classes best provide the atmosphere in which issues specifically related to gender can be freely and comfortably explored.

Summary and Conclusions

At this point few definitive conclusions can be drawn about the overall impact of current efforts to implement single-sex classes, especially with respect to their impact on girls. Three problems associated with much of the research and practice in this area make it difficult to offer a general assessment of single-sex classes: (1) the disparity in the goals of single-sex classes, (2) the differences in how these classes have been implemented, and (3) the lack of systematic, long-term research.

Goals

As noted, single-sex classes have been established with a variety of aims or goals. Sometimes these classes are established to focus on achievement issues, sometimes on social and behavioral issues, sometimes on cultural issues, and often on a combination of issues. Furthermore, in some cases—for example in some African-centered schools—single-sex classes are established as an extension of the educational and cultural goals of the school, whereas in other situations the relationship between the single-sex classes and the overall aims and context of the schools is not always clear, or at least is not explicit.

Implementation

Single-sex classes have also been implemented in a variety of ways, ranging from short-term projects to ongoing activities. Sometimes students may attend one or two single-sex classes in a day or even a week. In other situations, students appear to spend most of their time in single-sex classes in a nominally coeducational school. Still other single-sex classes take place as after-school activities, although they constitute an extension of, and are deeply intertwined with, the activities of the regular school day. Some schools have established single-sex classes only for girls; others have focused on boys. In a number of cases, both all-girls and all-boys classes have been established.

Research

While the need for more research on single-sex classes is clear, it is also important for such research to take into account differences in goals and implementation when considering the outcomes of these classes. The dearth of long-term, systematic studies of single-sex classes is partly attributable to the fact that many of the efforts to implement these types of classes have themselves been short-term with little follow-up. Furthermore, there are few experimental studies to tell us whether or not there is a cause-and-effect relationship between single-sex classes and particular outcomes. Many of the studies that have been done are primarily anecdotal. Finally, few studies have looked at single-sex classes within the contexts of the particular schools in which they were implemented.

In spite of the shortcomings of the existing research on single-sex classes, some common threads seem to permeate current studies that suggest some possible positive effects of these classes for girls. Three of these threads are described here.

First, one finding across studies suggests that single-sex classes are useful for girls because they establish comfortable places in which girls can learn and explore the world. This benefit is evident from the self-reports in the literature about single-sex classes in math and science, and the same finding emerges from our study of the after-school programs.

Second, single-sex classes provide an opportunity for girls to consider issues of gender

9 *Continued p. 9, "Single-Sex Education"*

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identity and the variety of roles girls and women can consider in today's and tomorrow's society. Evidence from both the literature and our research in the African-centered schools suggest that girls in single-sex classrooms can be more easily encouraged to explore a range of roles and options.

Third, single-sex classes may be particularly helpful to girls at the developmental level of early adolescence. This suggestion must be interpreted with caution, however, since it could be an artifact of the large number of studies conducted with middle school students. Fewer studies appear to have involved secondary or elementary school students. However, consideration of the developmental changes associated with early adolescence suggests that this is a time when girls become particularly concerned about their sexual identity as they deal with the changes of puberty. Since girls tend to mature earlier than boys, single-sex classes at the sixth- or seventh-grade level offer a particularly salient advantage for girls. At the seventh- and eighth-grade levels, such classes may help both boys and girls cope with the developmental changes of early adolescence. Finally, there may be an indirect positive effect for girls that could emanate from some single-sex classes for boys. In particular, one relatively important component of the classes for boys in the African-centered school Cheryl Ajirotutu and I studied has been an explicit consideration of issues of gender bias and the roles that boys and men play in contributing to the social and psychological oppression of women and girls. We do not know yet how widespread these types of considerations are in other classes for African American boys.

Areas for Future Research

Clearly, this topic demands much more research. First, we need to look at the outcomes of single-sex classes in terms of the goals established for them. Second, we must investigate systematically the impact of various types of single-sex classes. Third, we should examine the context within which single-sex classes occur, not only in terms of the schools that may offer single-sex classes, but also the context of the communities they serve. One particular aspect that needs further research concerns the intersections of class, race, and ethnicity with gender in the establishment, implementation, and outcomes of single-sex classrooms. As evident from the limited research on African-centered schools, such classrooms may have particularistic meanings dependent on the cultural backgrounds of the students served.

As indicated at the outset of this article, single-sex classes are not a new phenomenon in this society. However, increased interest in them today reflects concerns very different from those that supported the single-sex classes common in schools until the early 1970s. Considerations of single-sex classes in the twenty-first century must include their impact on the status and outlook of girls and women and the profound changes in class and culture that have recently taken place in our society and others like it. ✦

This article is adapted from "The Contexts of Single-Sex Classes" in the AAUW report Separated by Sex: A Critical Look at Single-Sex Education for Girls, *(Washington, D.C.: AAUW Educational Foundation, 1998).*

Single-sex classes provide an opportunity for girls to consider issues of gender identity and the variety of roles girls and women can consider in today's and tomorrow's society.

Notes

1. See for example, Myra and David Sadker, *Failing at Fairness: How America's Schools Cheat Girls* (New York: Charles Scribner's Sons, 1994) and *The AAUW Report: How Schools Shortchange Girls*, researched by the Susan Bailey et al., Wellesley College Center for Research on Women (Washington, D.C.: AAUW Educational Foundation, 1992).
2. H. W. Marsh and K. J. Rowe, "The Effects of Single Sex and Mixed Sex Mathematics Classes Within a Coeducational School: A Reanalysis and Comment," *Australian Journal of Education 40*, no. 2 (1996): 14, 162.
3. R. A. Durost, "Single Sex Math Classes: What and for Whom? One School's Experiences," *NASSP Bulletin 80*, no. 577 (February 1996): 27-31.
4. M. V. Martin, *Inside a Gender Sensitive Classroom: An All Girls Physics Class*, (April, 1996) Paper presented at the annual meeting of the National Association of Research in Science Teaching, St. Louis, Mo.
5. W. C. Perry, "Gender Based Education: Why It Works at the Middle School Level," *NASSP Bulletin 80*, no. 577 (February 1996): 32-35.
6. K. Bushweller, "Turning Our Backs on Boys," *American School Board Journal 181*, no. 5 (May 1994): 20-25.
7. M. D. Evans, "A Single Gender Learning Strategy," *Principal 73*, no. 1 (September 1993): 52-53.
8. J. Richardson, "Innovations. Separated by Sex. A Troubled New Jersey Middle School Segregates Girls from Boys," *Teacher Magazine 6*, no. 8 (May-June 1995): 14.
9. C. D. Lee, "Profile of an Independent Black Institution: African Centered Education at Work," *Journal of Negro Education 61*, 2 (1992): 160-77.
10. See, for example, M. J. Shujaa, *Too Much Schooling, Too Little Education: A Paradox of Black Life in White Societies* (Trenton, N.J.: Africa World Press, 1994).

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Acting on What We Know . . . continued

outcome. We suggested the rush may be driven by four questionable assumptions held by the public: (1) that girls and boys are completely different, (2) that boys will be boys and little can be done to change their behavior in the educational environment, (3) that gender equity is about fairness to girls, and (4) that our efforts toward equitable coeducation have failed, leaving no recourse other than single-sex solutions.

We disputed those assumptions and concluded that the focus of both research and policy needs to begin with the question of what constitutes a good education. Further, we asked, can a good education be considered excellent if it isn't equitable, that is if it doesn't reach the vast majority of students—girls and boys of all colors and abilities?

Our goal needs to be high quality educational access and outcomes for both female and male students.

My own answer is that a good education is one that provides the tools, resources, and environments that enable each and every student to: (1) think critically, creatively, independently, and deeply; (2) develop the ability to ask searching, worthwhile questions and identify how and where to find information; and (3) acquire stores of knowledge and the skills and strategies to expand those stores throughout her or his life. A good education combines the study of how to shape and participate in a just and informed society with the acquisition of knowledge and skills related to substantive disciplines. A good education challenges each student to the maximum and treats the responsibility for high-level outcomes as a shared enterprise—the joint obligation of the system, the public, the community, the educators, the family, and the student. A good education ensures full access and opportunity, equitable and developmentally appropriate treatment, and high-quality results for all.

Does a good education differ for girls and boys? Most of us would say of course not. Children of both sexes and all backgrounds and abilities are entitled to a high-quality education. Do boys and girls need different things to get a good education? They well may, because although girls and boys are more similar than they are different, our society treats them as if they are separate species. We need to make explicit and address the inequities, both historical and current, within our social institutions—including our schools—to ensure equitable access, treatment, and outcomes. In the short as well as the long term, it is our responsibility to change not just the girls but the boys, the adults, and the entire social organizations in which the educational enterprise operates.

We face a series of difficult dilemmas in searching for appropriate remedies. Separate is not and has never been equal. Even if the motive is to empower rather than to disenfranchise, the danger that separation might once again be used to oppress rather than to liberate is too grave. On the other hand, it is pedagogically and developmentally appropriate to offer a variety of choices in the way the teaching and learning processes are conducted. We each have our own approaches to learning and doing, some of which derive from our backgrounds, experiences, and cultures and are thus likely to be associated with group membership, and some of which are characteristic of our individual makeup. How do we create learning environments that support all the variations?

Another critical dilemma is that in order to know more about what works, we have to invest in experiments. Pat and I proposed in the *New York Law School Journal* article that:

> *If future studies examine the substance of the educational process and offerings in re[illegible]tion to resources and gender composition, and look at single-sex and coed settings where there is minimal harassment and positive support of both genders, we can anticipate that we will learn a great deal more about strategies that serve both girls and boys well.*[2]

Yet this may not be an appropriate use of public resources, given the concerns about legality and precedent.

There is a great deal that we don't know about the efficacy of educating girls and boys in single-sex settings. Our goal needs to be high-quality educational access and outcomes for both female and male students. These complex questions deserve serious and reflective consideration, and a great deal more research before we rush to solutions whose effects are poorly understood. ♦

Notes

1. E. Wahl and P. Campbell, "Of Two Minds: Single-Sex/Co-Education and the Search for Gender Equity," *New York Law School Journal of Human Rights*, vol. 14, (Winter/Spring 1998).
2. Ibid.

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WEEA Resources

The publications included here are not limited to the topic of single-sex education, but rather, offer a broader perspective on gender as it relates to learning.

Building Self

Adolescent Girls and Self-Esteem

The development of self-esteem and a strong sense of self-worth among girls across racial and ethnic lines are two of the many factors that single-sex education attempts to address. This working paper explores the research about girls' self-esteem during the transition to adolescence and offers strategies that are specific to both single-sex and co-educational settings. From the Working Papers Series. •By Sundra Hansburg (45 pp.) 1993•#2745•$6.00

Lifting the Barriers

600 Strategies that Really Work to Increase Girls' Participation in Science, Mathematics, and Computers

Renowned math, science, and technology researcher and author Jo Sanders offers hundreds of teacher-tested strategies for successfully involving girls in math, science, and technology. Although this book was designed to address issues within co-educational settings, the strategies are applicable to single-sex settings, as well as classes on other subjects. Includes a discussion on what Sanders calls "equity trap"—potential pitfalls of which to be aware in assigning single-sex groupings within any classroom. •By Jo Sanders (111 pp.)1994•#2809•$13.95

Math and Science for the Coed Classroom

This informative pamphlet series by a national expert in the field of equity in mathematics, science, and engineering offers practical information to help ensure that all students—girls and boys—are engaged learners in our math and science classes. •By Patricia B. Campbell and Jennifer N. Storo. (4 pamphlets, each 8 pp.) 1996•#2767 (sampler)• $6.00

Middle School Voices on Gender Identity

This issue of the *WEEA Digest* explores students' ideas about gender based on their responses to open-ended statements such as "The best thing about my gender is ___." •By Cynthia S. Mee. (8 pp.) 1995•Free. Call our hotline at 800-225-3088 to request a copy. Copies of the *Digest* are available free for use in classrooms and for distribution at conferences.

Practical Tools and Support for Gender-Fair Learning

The WEEA Equity Resource Center at EDC can help you find the tools you need to create gender-fair multicultural learning environments.

EQUITY ONLINE is the center's website. It's full of exciting information and tools, from fun facts about the history of equity to a list of practical curricula designed to help make any subject gender fair. Previous issues of the *WEEA Digest* are also available to read on-line or download.

www.edc.org/WomensEquity

EDEQUITY (the Educational Equity Discussion List) is designed to encourage discussion about international theory and practice. List participants are educators, administrators, equity practitioners, advocates, parents, policymakers, counselors, and many others interested in equity.

To subscribe to EDEQUITY send e-mail to <Majordomo@mail.edc.org>. The subject should be left blank and the body of the message should read:

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To order WEEA materials call our distribution center at 800-793-5076.

Additional Resources

Public Education

Issues Involving Single-Gender Schools and Programs

GAO report to the chairman, Committee on the Budget, and House of Representatives (May 1996), GAO/HEHS-96-122. United States General Accounting Office, P.O. Box 6015, Gaithersburg, MD 20884-6015, (202) 512-6000. **www.gao.gov/AIndexFY96/abstracts/he96122.htm**

Separated by Sex

A Critical Look at Single-Sex Education for Girls

A comprehensive overview of the topic of single-sex education from a research and public policy perspective. Includes a variety of views from leading scholars in the field. •American Association of University Women (1998). American Association of University Women Educational Foundation, 1111 Sixteenth Street NW, Washington, DC 20036; (800) 326-AAUW. **www.aauw.org**

Symposium 1997

A Symposium on Finding a Path to Gender Equality: Legal and Policy Issues Raised by All-Female Public Education

This special issue of the *New York Law School Journal of Human Rights* presents articles about a variety of issues related to single-sex education. •*New York Law School Journal of Human Rights*, vol. 14, (Winter/Spring 1998). Coordinator of Co-curricular Programs, New York Law School, 57 Worth Street, New York, NY 10013; (212) 437-2100.

Voices of Hope

Adolescent Girls at Single-Sex and Coeducational Schools

A study of over 50 high school girls at four New England independent schools that reexamines the single-sex debate by following the development of girls from ninth grade through the first year of college. •By Carol B. Shmurak, (1998), University of Southern California.

Acting on What We Know

By Ellen Wahl, Education Development Center, Inc.

Institutions are rushing to embrace single-sex settings as a solution to educational inequities in access and outcome.

What do we know about single-sex schools and single-sex classrooms, especially their effects on girls? When Patricia B. Campbell and I were asked this question by the AAUW Educational Foundation for their roundtable and report, *Separated by Sex: A Critical Look at Single-Sex Education for Girls*, we said that the research base is quite limited. Most school comparisons have by necessity been conducted in parochial and/or private schools or outside the United States in countries where single-sex schools are a regular part of the public education system. Careful studies of the effects of single-sex classrooms within coeducational schools are even more limited. Where there are data, the results are inconsistent and confusing. Rarely have the studies looked systematically at the content, pedagogy, teachers, resources, and motives for the single-sex arrangement, all of which would be reasonable factors to consider in assessing outcomes and efficacy.

In our *New York Law School Journal of Human Rights* article, in which the question is juxtaposed with the legal issues, Pat Campbell and I charged that:

> *In the research and the public discussion causality has too often been ascribed simply to the gender of the students rather than a host of interrelated factors. The content, practice, and organization of an educational setting matter, as do the climate and culture. Too much of the literature and discussion compares schools providing different levels of content and pedagogy and concludes that differences are due to the schools' gender composition.*[1]

We wondered why, then, if we really know relatively little from empirical data, institutions are rushing to embrace single-sex settings as a solution to educational inequities in access and

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WEEA Equity Resource Center
Education Development Center, Inc.
55 Chapel Street, D-1099
Newton, MA 02458-1060

617-969-7100 • 800-225-3088
TTY: 800-354-6798
Fax: 617-332-4318
E-mail: WEEActr@edc.org
www.edc.org/WomensEquity

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WEEA is the Women's Educational Equity Act, federal legislation to promote educational equity for girls and women.

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Julia Potter, *Managing Editor*
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Liz Hiles, *Research Assistant*
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